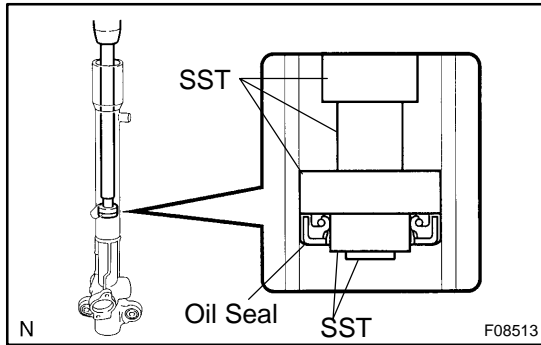


## REASSEMBLY

### NOTICE:

When using a vise, do not overtighten it.

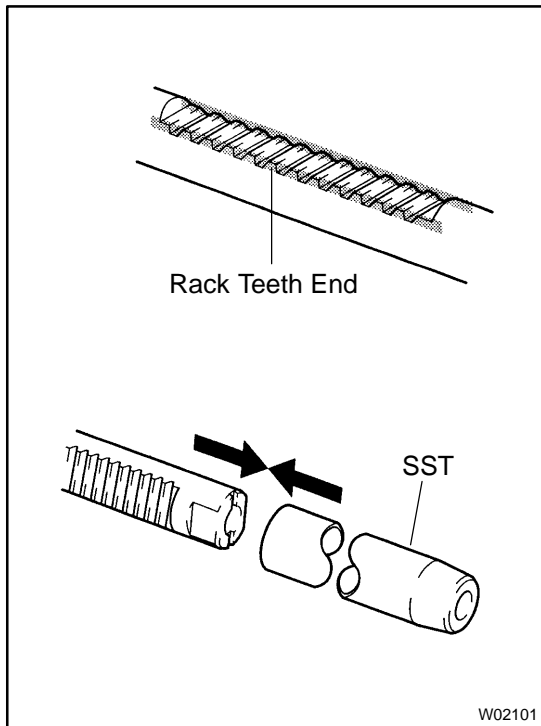
1. **COAT PARTS INDICATED BY ARROWS WITH POWER STEERING FLUID OR MOLYBDENUM DISULFIDE LITHIUM BASE GREASE (See page SR-45 )**
2. **INSTALL OIL SEAL**
  - (a) Coat a new oil seal lip with power steering fluid.



- (b) Install the oil seal to SST, and press them into the rack housing.  
SST 09950-60010 (09951-00210, 09951-00370, 09952-06010), 09950-70010 (09951-07360)

### NOTICE:

- **Make sure that the oil seal is installed facing in the correct direction.**
- **Take care that the oil seal does not get reversed as you install it.**



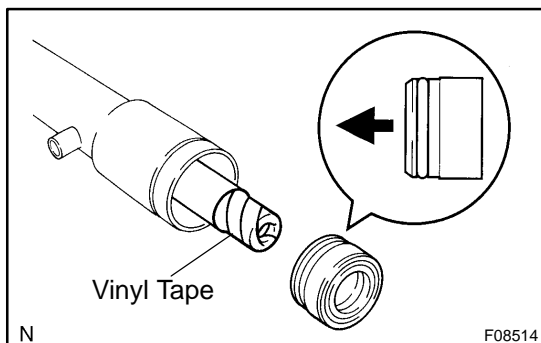
### 3. INSTALL STEERING RACK

- (a) Install SST to the rack.  
SST 09631-10041

#### HINT:

If necessary, scrape the burrs off the rack teeth end and bur-nish.

- (b) Coat SST with power steering fluid.
- (c) Install the steering rack into the rack housing.
- (d) Remove the SST.  
SST 09631-10041



### 4. INSTALL BUSHING

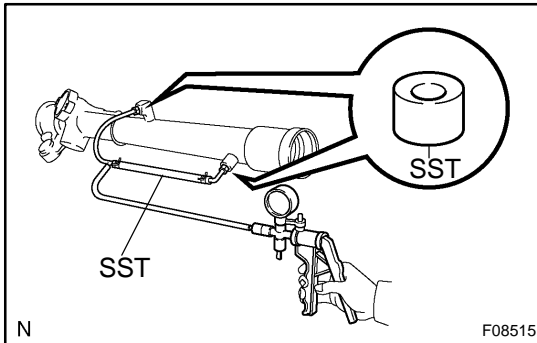
- (a) Coat a new O-ring with power steering fluid and install it to the bushing.
- (b) To prevent oil seal lip damage, wind vinyl tape on the steering rack end, and apply power steering fluid.
- (c) Install the bushing into the rack housing.

### NOTICE:

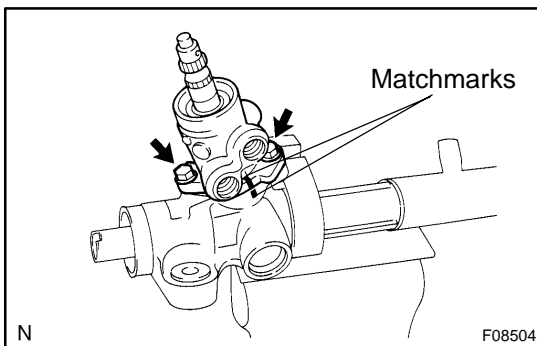
- **Make sure that the bushing is installed facing in the correct direction.**
- **Be careful not to damage the oil seal lip.**

**5. INSTALL CYLINDER END STOPPER**

- (a) Push into the cylinder end stopper.
- (b) Using needle nose pliers, install the snap ring.

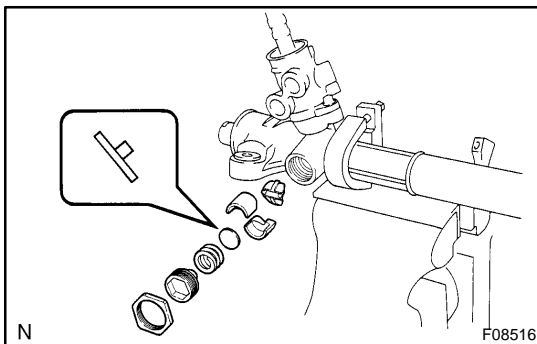
**6. AIR TIGHTNESS TEST**

- (a) Install SST to the rack housing.  
SST 09631-12071 (09633-00010)
  - (b) Apply 53 kPa (400 mmHg, 15.75 in.Hg) of vacuum for about 30 seconds.
  - (c) Check that there is no change in the vacuum.
- If there is a change in the vacuum, check the installation of the oil seals.

**7. INSTALL CONTROL VALVE ASSEMBLY**

- (a) Install a new gasket.
- (b) Align the matchmarks on the control valve housing and rack housing.
- (c) Push into the control valve assembly.
- (d) Install the 2 bolts.

**Torque: 21 N·m (220 kgf-cm, 15 ft-lbf)**

**8. INSTALL RACK GUIDE SUB-ASSEMBLY, RACK GUIDE SPRING SPACER, RACK GUIDE SPRING AND RACK GUIDE SPRING CAP**

- (a) Install the rack guide sub-assembly, rack guide spring spacer and rack guide spring.

**NOTICE:**

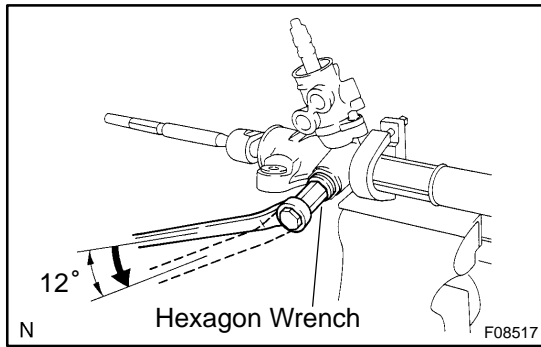
**Make sure that the rack guide spring spacer is installed facing in the correct direction.**

- (b) Apply sealant to 2 or 3 threads of the rack guide spring cap.

**Sealant:**

**Part No. 08833-00080, THREE BOND 1344, LOCTITE 242 or equivalent**

- (c) Temporarily install the rack guide spring cap.

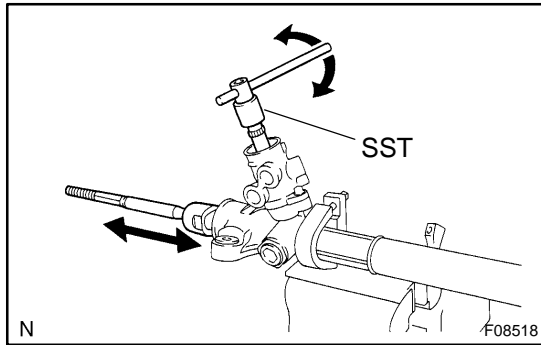


**9. ADJUST TOTAL PRELOAD**

- (a) To prevent the steering rack teeth from damaging the oil seal lip, temporarily install the RH and LH rack ends.
- (b) Using a hexagon wrench (19 mm), torque the rack guide spring cap.

**Torque: 25 N·m (250 kgf·cm, 18 ft·lbf)**

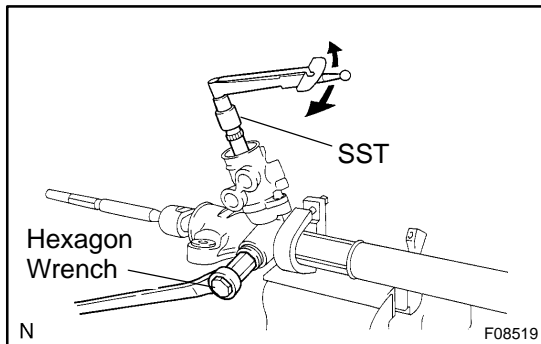
- (c) Using a hexagon wrench (19 mm), return the rack guide spring cap 12°.



- (d) Using SST, turn the control valve shaft right and left 1 or 2 times.

SST 09616-0001 1

- (e) Using a hexagon wrench (19 mm), loosen the rack guide spring cap until the rack guide spring is not functioning.

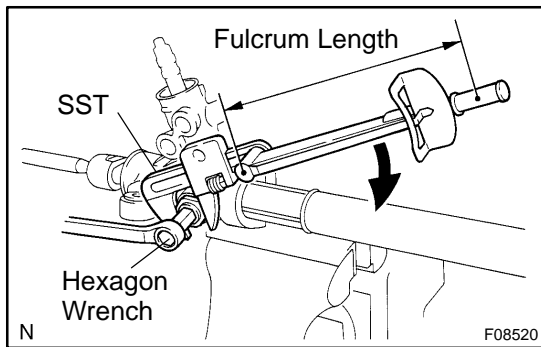


- (f) Using SST, a torque wrench and hexagon wrench (19 mm), tighten the rack guide spring cap until the preload is within the specification.

SST 09616-0001 1

**Preload (turning):**

**1.2 - 1.4 N·m (12 - 14 kgf·cm, 10.4 - 12.2 in·lbf)**



**10. INSTALL RACK GUIDE SPRING CAP LOCK NUT**

- (a) Apply sealant to 2 or 3 threads of the rack guide spring cap lock nut.

**Sealant:**

**Part No. 08833-00080, THREE BOND 1344, LOCTITE 242 or equivalent**

- (b) Temporarily install the rack guide spring cap lock nut.
- (c) Using a hexagon wrench (19 mm), hold the rack guide spring cap and using SST, torque the rack guide spring cap lock nut.

SST 09922-10010

**Torque: 28 N·m (290 kgf·cm, 21 ft·lbf)**

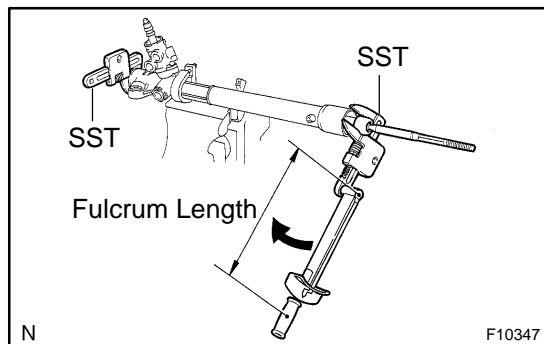
**NOTICE:**

**Use SST 09922-10010 in the direction shown in the illustration.**

**HINT:**

Use a torque wrench with a fulcrum length of 345 mm (13.58 in.).

- (d) Recheck the total preload.  
**Preload (turning):**  
**1.2 - 1.4 N·m (12 - 14 kgf·cm, 10.4 - 12.2 in.-lbf)**
- (e) Remove the RH and LH rack ends.



### 11. INSTALL RH AND LH RACK ENDS

- (a) Temporarily install the RH rack end.  
 (b) Using SST, hold the steering rack LH side steadily and using another SST, torque the RH rack end.  
 SST 09922-10010  
**Torque: 62 N·m (630 kgf·cm, 46 ft-lbf)**

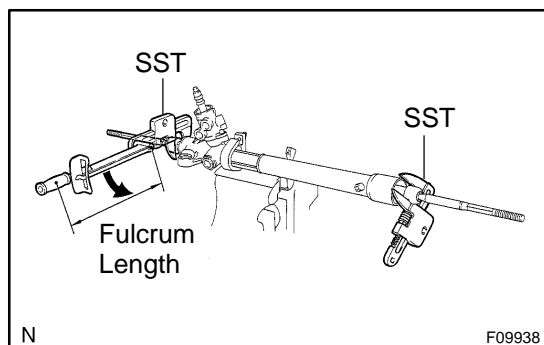
#### NOTICE:

**Use SST 09922-10010 in the direction shown in the illustration.**

#### HINT:

Use a torque wrench with a fulcrum length of 380 mm (14.96 in.).

- (c) Temporarily install the LH rack end.



- (d) Using SST, hold the RH rack end steadily and using another SST, torque the LH rack end.  
 SST 09922-10010  
**Torque: 62 N·m (630 kgf·cm, 46 ft-lbf)**

#### NOTICE:

**Use SST 09922-10010 in the direction shown in the illustration.**

#### HINT:

Use a torque wrench with a fulcrum length of 380 mm (14.96 in.).

### 12. INSTALL RH AND LH RACK BOOTS, CLAMPS AND CLIPS

- (a) Ensure that the steering rack end hole is not clogged with grease.

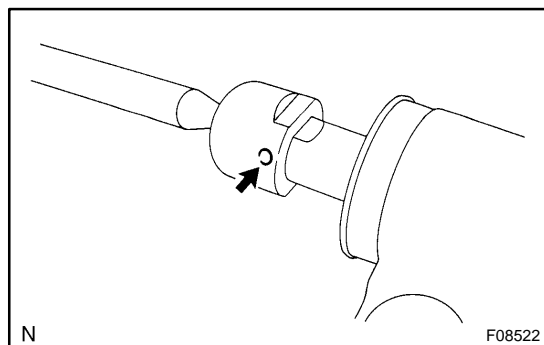
#### HINT:

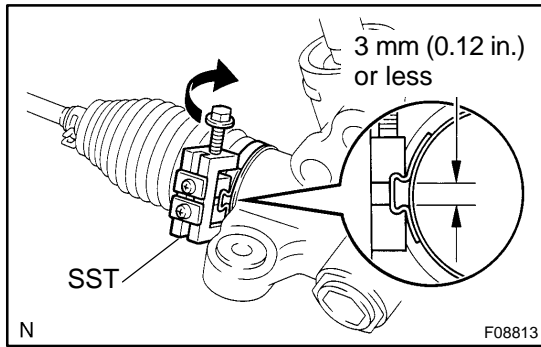
If the hole is clogged, the pressure inside the boot will change after it is assembled and the steering wheel is turned.

- (b) Install the boot, clip and a new clamp.

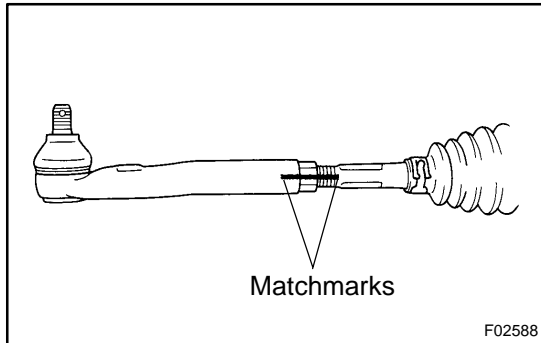
#### NOTICE:

**Be careful not to damage or twist the boot.**



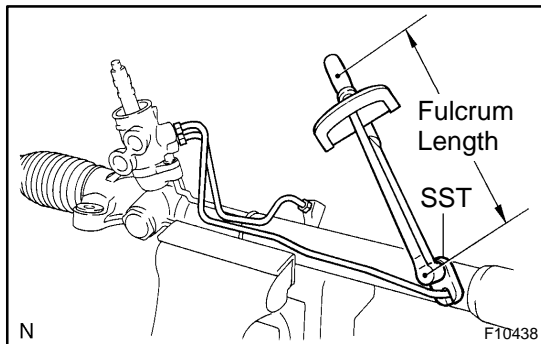


- (c) Using SST, tighten the clamp as shown in the illustration. SST 09521-24010
- (d) Employ the same manner described above to the other side.



**13. INSTALL RH AND LH TIE ROD ENDS AND LOCK NUTS**

- (a) Screw the lock nut and tie rod end onto the rack end until the matchmarks are aligned.
- (b) After adjusting toe-in, torque the nut (See page SA-5).
- Torque: 47 N·m (480 kgf·cm, 35 ft·lbf)**
- (c) Employ the same manner described above to the other side.



**14. INSTALL 2 TURN PRESSURE TUBES**

- (a) Coat 4 new O-rings with power steering fluid and install them to 2 turn pressure tubes.
- (b) Using SST, install the 2 turn pressure tubes. SST 09023-38200
- Torque: 11 N·m (110 kgf·cm, 8 ft·lbf)**

**HINT:**

- Use a torque wrench with a fulcrum length of 250 mm (9.84 in.).
- This torque value is effective in case that SST is parallel to a torque wrench.